ACCESS SERVICE TARIFF PART 4

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.1 Description (Cont'd)

(H) FGD switching will be arranged to accept calls from telephone exchange service locations without the need for dialing 101XXXX uniform access code. Each telephone exchange service line may be marked with a code to identify which 101XXXX code its calls will be directed to for interLATA service.

(I) Unless prohibited by technical limitations, the customer's Interim NXX Translation and/or 800/888/877 Data Base traffic may, at the option of the customer, be combined in the same trunk group arrangement with the customer's non-Interim NXX Translation and/or 800/888/877 Data Base traffic. When required by technical limitations, or at the request of the customer, a separate trunk group will be established for Interim NXX Translation and/or 800/888/877 Data Base traffic.

(J) When a customer has had FGB access in an end office and subsequently replaces the FGB access with FGD access, at the mutual agreement of the customer and the Telephone Company, the Telephone Company will direct calls dialed by the customer's end users using the customer's previous FGB access code to the customer's FGD access service. The customer must be prepared to handle normally dialed FGD calls, as well as calls dialed with the FGB access code which requires the customer to receive additional address signaling from the end user. Such calls will be rated as FGD. The Telephone Company may, with 90 days' written notice to the customer, discontinue this arrangement.

(K) For FGD switched access service to a Wireless Switching Center (WSC) directly interconnected to a Telephone Company access tandem office, the customer will be billed only the Local Transport premium rate element for the FGD usage. The mileage used to determine the monthly rate for the local transport rate element is as set forth in 6.4.6(G) preceding.

(L) A customer who has FGB access may elect to have their FGB traffic routed over FGD trunks at the end office or access tandem. If the customer elects this option the FGB traffic will be rated at FGD rates.

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.2 Optional Feature

Following are the various nonchargeable and chargeable optional features that are available in lieu of, or in addition to, the standard features provided with Feature Group D. Nonchargeable Optional Features are provided as Common Switching, Transport Termination and Local Transport options as set forth in (A) through (C) following. Chargeable optional features are set forth in (D) following.

(A) Common Switching Options

Descriptions of the common switching optional features are set forth in 6.10 following.

(1) Automatic Number Identification (ANI)

(2) Service Class Routing

(3) Alternate Traffic Routing

(4) Trunk Access Limitation

(5) Call Gapping Arrangement

(6) International Carrier Option

(7) Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

(8) End Office End User Line Service Screening for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

(9) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

(10) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.2 Optional Features (Cont'd)

(A) Common Switching Options

(11) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

(12) Digital Switched 56 Service

(B) Transport Termination Options

(1) Operator Trunk - Full Feature

The Operator Trunk optional feature is set forth in 6.10.2(C) following.

(C) Local Transport Options

(1) Supervisory Signaling

The Supervisory Signaling optional feature, due to its technical nature, is set forth in 15.1.1 following.

(2) Signaling System 7 (SS7)

The SS7 optional feature allows the customer to send and receive signals for out of band call set up and is available with Feature Group D. This option requires the establishment of a signaling connection between the customer's designated premises/Signaling Point of Interface (SPOI) and a Telephone Company's Signaling Transfer Point (STP).

SS7 is provided in both the originating and terminating direction on FGD and each signaling connection is provisioned for two-way SS7 signaling information.

(3) Multifrequency Address Signaling

(4) Calling Party Number (CPN) Parameter

(5) Charge Number Parameter (CNP)

(6) Carrier Selection Parameter (CSP)

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

(D) Chargeable Optional Features

(1) Interim NXX Translation

The Interim NXX Translation Optional Feature is set forth in 6.10.3(A) following.

(2) Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection Service (CCSNC)

The CCSNC Optional Feature is provided as set forth in 6.10.3 following.

(3) Flexible Automatic Number Identification (Flex ANI)

The Flex ANI Optional Feature is provided as set forth in 6.10.3 following.

6.8.3 Design and Traffic Routing

For Feature Group D, the Telephone Company shall design and determine the routing of Tandem Switched Transport Access, including the selection of the first point of switching and the selection of facilities from the interface to any switching point and to the end offices where busy hour minutes of capacity are ordered. The Telephone Company shall also decide if capacity is to be provided by originating only, terminating only, or two-way trunk groups. Finally, the Telephone Company will decide whether trunk side access will be provided through the use of two-wire or four-wire trunk terminating equipment.

For Feature Group D Direct Trunked Transport service, the Telephone Company will determine the routing of Switched Access Service from the point of interface to the first point of switching or, if the customer specifies one or more hub locations for multiplexing, from the point of interface to the hub location, from one hub location to another hub location, and/or from a hub location to the first point of switching.

Selection of facilities and equipment and traffic routing of the service is based on standard engineering methods, available facilities and equipment, and actual traffic patterns. If the customer desires routing or directionality different from that determined by the Telephone Company, the Telephone Company will work cooperatively with the customer in determining (1) whether the service is to be routed directly to an end office or through an access tandem switch and (2) the directionality of the service; except the Telephone Company will designate the first point(s) of switching and routing to be used where equal access is provided through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.4 Measuring Access Minutes

Customer traffic to end offices will be recorded at end office switches or access tandem switches. Originating and terminating calls will be measured or derived to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because the Telephone Company lost or damaged tapes or incurred recording system outages, the Telephone Company will estimate the volume of lost customer access minutes of use based on previously known values.

FGD access minutes or fractions thereof, the exact value of the fraction being a function of the switched technology where the measurement is made, are accumulated over the billing period for each end office, and are then rounded up to the nearest access minute for each end office.

Originating Usage

For originating calls over FGD the measured minutes are the chargeable access minutes.

For originating calls over FGD provided with Multi-Frequency Signaling, usage measurement begins when the originating FGD first point of switching receives the first wink supervisory signal forwarded from the customer's point of termination.

For originating calls over FGD provided with Signaling System 7 (SS7) Signaling when the FGD end office is not routed through an access tandem for connection to the customer, usage measurement begins when the SS7 Initial Address Message is sent from the Service Switching Point (SSP) to the Signal Transfer Point (STP).

For originating calls over FGD provided with Signaling System 7 (SS7) Signaling when the FGD end office is routed through a tandem for connection to the customer, usage measurement begins when the FGD end office receives the SS7 Exit Message from the tandem.

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.4 Measuring Access Minutes (Cont'd)

Originating Usage (Cont'd)

The measurement of originating call usage over FGD provided with Multi-Frequency Signaling ends when the originating FGD first point of switching receives disconnect supervision from either the originating end user's end office, indicating the originating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

The measurement of originating calls usage over FGD provided with SS7 Signaling ends when the originating FGD end office receives an SS7 Release Message indicating either the originating or terminating end user has disconnected.

Terminating Usage

For terminating calls over FGD the chargeable access minutes are either measured or derived.

For terminating calls over FGD provided with Multifrequency Signaling where measurement capability exists, the measurement of chargeable access minutes begins when the terminating FGD first point of switching receives answer supervision from the terminating end user's end office, indicating the terminating end user has answered. This measurement ends when the terminating FGD first point of switching receives disconnect supervision from either the terminating end user's end office, indicating the terminating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

For terminating calls over FGD, where measurement capability does not exist, terminating FGD usage is derived from originating usage, excluding usage from calls to closed end services or Directory Assistance Services.

For terminating calls over FGD with SS7 signaling, usage measurement begins when the terminating recording switch receives answer supervision from the terminating end user. The Telephone Company switch receives answer supervision and sends the indication to the customer in the form of an answer message. The measurement of terminating FGD call usage ends when the entry switch receives or sends a release message, whichever occurs first.

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.5 Design Blocking Probability

The Telephone Company will design the facilities used in the provision of Switched Access Service FGD to meet the blocking probability criteria as set forth in (A) and (B) following.

(A) For Feature Group D, the design blocking objective will be no greater then one percent (.01) between the point of termination at the customer's designated premises and the end office switch, whether the traffic is directly routed without an alternate route or routed via an access tandem. Standard traffic engineering methods as set forth in reference document Telecommunications Transmission Engineering - Volume 3 - Networks and Services (Chapters 6-7) will be used by the Telephone Company to determine the number of transmission paths required to achieve this level of blocking.

(B) The Telephone Company will perform routine measurement functions to assure that an adequate number of transmission paths are in service. The Telephone Company will recommend that additional capacity (i.e., busy hour minutes of capacity or trunks) be ordered by the customer when additional paths are required to reduce the measured blocking to the designed blocking level. For the capacity ordered, the design blocking objective is assumed to have been met if the routine measurements show that the measured blocking does not exceed the threshold listed in the following tables.

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.5 Design Blocking Probability (Cont'd)

(B) (Cont'd)

(1) For transmission paths carrying only first routed traffic direct between an end office and customer's designated premises without an alternate route, and for paths carrying only overflow traffic, the measured blocking thresholds are as follows:

Number of Transmission Paths Per Trunk Group	Transmission blocking thresholds in time consistent busy hour for the number of measurements taken between 8:00 a.m. and 11:00 p.m. per trunk group			
	15-20 Measurements	11-14 Measurements	7-10 Measurements	3-6 Measurements
2	7.0%	8.0%	9.0%	14.0%
3	5.0%	6.0%	7.0%	9.0%
4	5.0%	6.0%	7.0%	8.0%
5-6	4.0%	5.0%	6.0%	7.0%
7 or more	3.0%	3.5%	4.0%	6.0%

(2) For transmission paths carrying first routed traffic between an end office and customer's premises via an access tandem, the measured blocking thresholds are as follows:

Number of Transmission Paths Per Trunk Group	Transmission blocking thresholds in time consistent busy hour for the number of measurements taken between 8:00 a.m. and 11:00 p.m. per trunk group			
	15-20 Measurements	11-14 Measurements	7-10 Measurements	3-6 Measurements
2	4.5%	5.5%	6.0%	9.5%
3	3.5%	4.0%	4.5%	6.0%
4	3.5%	4.0%	4.5%	5.5%
5-6	2.5%	3.5%	4.0%	4.5%
7 or more	2.0%	2.5%	3.0%	4.0%

Switched Access Service

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.6 Network Blocking Charge

The customer will be notified by the Telephone Company to increase its capacity (busy hour minutes of capacity or quantities of trunks) when excessive trunk group blocking occurs on groups carrying Feature Group D traffic and the measured access minutes for that hour exceed the capacity purchased. Excessive trunk group blocking occurs when the blocking thresholds stated below are exceeded. They are predicated on time consistent, hourly measurements over a 30 day period excluding Saturdays, Sundays and national holidays. If the order for additional capacity has not been received by the Telephone Company within 15 days of the notification, the Telephone Company will bill the customer, at the rate set forth in 17.2.2 following, for each overflow in excess of the blocking threshold when (1) the average "30 day period" overflow exceeds the threshold level for any particular hour and (2) the "30 day period" measured average originating or two-way usage for the same clock hour exceeds the capacity purchased.

Blocking Thresholds		
Trunks in Service	1%	1/2%
1-2	7%	4.5%
3-4	5%	3.5%
5-6	4%	2.5%
7 or greater	3%	2.0%

The 1% blocking threshold is for transmission paths carrying traffic direct (without an alternate route) between an end office and a customer's premises. The 1/2% blocking threshold is for transmission paths carrying first routed traffic between an end office and a customer's premises via an access tandem.

6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

6.8.7 Testing Capabilities

FGD is provided, in the terminating direction where equipment is available, with seven digit access to balance (100 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, data transmission (107 type) test line, loop around test line, short circuit test line and open circuit test line. In addition to the tests described in 6.2.4 preceding, which are included with the installation of service (Acceptance Testing) and as ongoing routine testing, Additional Cooperative Acceptance Testing, Additional Automatic Testing, and Additional Manual Testing, are available as set forth in 13.3.1 following.

When SS7 Signaling is ordered, network compatibility and other testing will be performed cooperatively by the Telephone Company and the customer as specified in Technical References TR-TSV 000905.

6.9 Interim Access (Cont'd)

6.9.1 Reserved For Future Use

6.9.2 Reserved For Future Use

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features

Following are descriptions of the various optional features that are available in lieu of, or in addition to, the standard features provided with the Feature Groups. They are provided as Common Switching, Transport Termination, or Interim NXX Translation options.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features

The following table shows the Feature Group with which the optional features are available.

Option	Available Feature Groups A	B	C	D
A) Call Denial on Line or Hunt Group	X			
B) Service Code Denial on Line or Hunt Group	X			
C) Hunt Group Arrangement	X			
D) Uniform Call Distribution Arrangement	X			
E) Nonhunting Number for Use with Hunt Group or Uniform Call Distribution Arrangement	X			
F) Automatic Number Identification (ANI)		X	X	X
G) Up to 7 Digit Outpulsing of Access Digits to Customer		X		
H) Delay Dial Start-Pulsing Signaling			X	
I) Immediate Dial Pulse Address Signaling			X	
J) Dial Pulse Address Signaling			X	
K) Service Class Routing			X	X
L) Alternate Traffic Routing		X	X	X
M) Trunk Access Limitation			X	X
N) Call Gapping Arrangement				X
O) International Carrier Option				X
P) Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services	X	X	X	X
Q) End Office End User Line Service Screening for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services			X	X
R) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services	X	X	X	X
S) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services	X	X	X	X
T) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services	X	X	X	X
U) Digital Switched 56 Service			X	X
V) Multifrequency Address Signaling			X	X
W) Signaling System 7 (SS7) Signaling			X	X
X) Calling Party Number (CPN)			X	X
Y) Carrier Selection Parameter (CSP)				X
Z) Charge Number Parameter (CNP)			X	X

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(A) Call Denial on Line or Hunt Group

This option allows for the screening of terminating Feature Group A calls. There are two screening arrangements available with this option as follows: 1) limiting terminating calls for completion to only 411 or 555-1212 whichever is available, 611, 911, 800/888/877 and a Telephone Company specified set of NXXs within the Telephone Company local exchange calling area of the dial tone office in which the arrangement is provided, or, 2) limiting terminating calls to completion to only the NXXs associated with all end offices in the LATA, i.e., the call cannot be further switched or routed out of the LATA nor will calls be completed to 411 or 555-1212 whichever is available, 611, 911, or 800/888/877. All other calls are routed to a reorder tone or recorded announcement. Arrangement 1 is provided in all Telephone Company electronic end offices and, where available, in electromechanical end offices. Arrangement 2 is provided where available. This feature is available with Feature Group A.

(B) Service Code Denial on Line or Hunt Group

This option allows for the screening of terminating calls within the LATA, and for disallowing completion of calls to 0-, 555 and N11 (e.g., 411, 611, and 911). This feature is provided where available in all Telephone Company end offices. It is available with Feature Group A.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(C) Hunt Group Arrangement

This option provides the ability to sequentially access one of two or more line side connections in the originating direction, when the access code of the line group is dialed. This feature is provided in all Telephone Company end offices. It is available with Feature Group A. All Feature Group A access services in the same hunt group must provide off-hook supervisory signaling from the same point in time in the call sequence i.e., all off-hook supervisory signals must either be provided by the customer's equipment before the called party answers or all must be forwarded by the customer's equipment when the called party answers.

(D) Uniform Call Distribution Arrangement

This option provides a type of multiline hunting arrangement which provides for an even distribution of calls among the available lines in a hunt group. Where available, this feature is provided in Telephone Company electronic end offices only. It is available with Feature Group A.

(E) Nonhunting Number for Use with Hunt Group or Uniform Call Distribution Arrangement

This option provides an access to an individual line within a multiline hunt or uniform call distribution group. When the nonhunting number is dialed, access is provided when it is idle, or busy tone is provided when it is busy. Where available, this feature is provided in Telephone Company electronic end offices only. It is available with Feature Group A.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(F) Automatic Number Identification (ANI)

(1) This option provides the automatic transmission of a seven digit or ten digit number and information digits to the customer designated premises for calls originating in the LATA, to identify the calling station. The ANI feature is an end office software function which is associated on a call-by-call basis with:

(a) all individual transmission paths in a trunk group routed directly between an end office and a customer designated premises or, where technically feasible, with

(b) all individual transmission paths in a trunk group between an end office and an access tandem, and a trunk group between an access tandem and a customer designated premises.

(2) The seven digit ANI telephone number is generally available with Feature Groups B and C. With these Feature Groups, technical limitations may exist in Telephone Company switching facilities which require ANI to be provided only on a directly trunked basis. ANI will be transmitted on all calls except those originating from multiparty lines, pay telephones using Feature Group B, or when an ANI failure has occurred. Seven digit ANI is not available with SS7 Signaling.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(F) Automatic Number Identification (ANI) (Cont'd)

(3) The ten digit ANI telephone number is only available with Feature Group D. The ten digit ANI telephone number consists of the Numbering Plan Area (NPA) plus the seven digit ANI telephone number. The ten digit ANI telephone number will be transmitted on all calls except those identified as multiparty line or ANI failure, in which case only the NPA will be transmitted (in addition to the information digit described below). Ten digit ANI is provided with multifrequency address signaling or SS7 signaling.

(4) With Feature Group C, at the option of the customer, ANI may be ordered from end offices where Telephone Company recording for end user billing is not provided. Additionally, ANI is provided from end offices where message detail recording is not required by the Telephone Company; as with 800/888/877 service. ANI is not provided from end offices where the Telephone Company forwards ANI to its recording equipment.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(F) Automatic Number Identification (ANI) (Cont'd)

(5) Where complete ANI detail cannot be provided, e.g., on calls from 4 and 8 party services, information digits will be provided to the customer.

The information digits identify:

(a) telephone number is the station billing number - no special treatment required,

(b) multiparty line - telephone number is a 4- or 8-party line and cannot be identified - number must be obtained via an operator or in some other manner,

(c) ANI failure has occurred in the end office switch which prevents identification of calling telephone number - must be obtained by operator or in some other manner,

(d) hotel/motel originated call which requires room number identification,

(e) coinless station, hospital, inmate, etc. call which requires special screening or handling by the customer, and

(f) call is an Automatic Identified Outward Dialed (AIOD) call from customer premises equipment. The AIOD ANI telephone number is the listed telephone number of the customer and is not the telephone number of the calling party.

These ANI information digits are generally available with Feature Groups B, C, and D.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(F) Automatic Number Identification (ANI) (Cont'd)

(6) Additional ANI information digits are available with Feature Group D also. They include:

(a) InterLATA restricted - telephone number is identified line

(b) InterLATA restricted - hotel/motel line

(c) InterLATA restricted - coinless, hospital, inmate, etc., line

These information digits will be transmitted as agreed to by the customer and the Telephone Company.

(7) Restrictions on Use and Sale of ANI

(a) Access customers of this tariff may use ANI in the following manner:

(i) For billing and collection information, for routing, screening, and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use ANI to offer a product or service that is directly related to the products or services previously acquired from the customer by the originating subscriber.

(b) Access customers of this tariff may not use ANI in the following manner:

(i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber for such reuse or sale.

(ii) Disclosing (except as permitted in (a), preceding), any information derived from the ANI for any purpose other than 1) performing the services or transactions that are the subject of the originating subscriber's call, 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling, using, and disclosing aggregate information, and 4) complying with applicable law or legal process.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(G) Up to 7 Digit Outpulsing of Access Digits to Customer

This option provides for the end office capability of providing up to 7 digits of the uniform access code (950-XXXX) to the customer designated premises. The customer can request that only some of the digits in the access code be forwarded. The access code digits would be provided to the customer designated premises using multifrequency signaling, and transmission of the digits would precede the forwarding of ANI if that feature were provided. It is available with Feature Group B.

(H) Delay Dial Start-Pulsing Signaling

Where available, this option provides a method of indicating to the near end trunk circuit readiness to accept address signaling information by the far end trunk circuit. Delay dial is often referred to as an off-hook, on-hook signaling sequence. The delay dial signal is the off-hook interval and the start-pulsing signal is the on-hook interval. With integrity check, the calling office will not outpulse until a delay dial (off-hook) signal followed by a start-pulsing (on-hook) signal has been identified at the calling office. This option is available with Feature Group C.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(I) Immediate Dial Pulse Address Signaling

Where available, this option provides for the forwarding of dial pulses from the Telephone Company end office to the customer without the need of a start-pulsing signal from the customer. It is available with Feature Group C.

(J) Dial Pulse Address Signaling

Where available, this trunk side option provides for the transmission of number information, e.g., called number, between the end office switching system and the customer designated premises (in either direction) by means of direct current pulses. It is available with Feature Group C.

(K) Service Class Routing

This option provides the capability of directing originating traffic from an end office to a trunk group to a customer designated premises, based on the line class of service (e.g., coin, multiparty or hotel/motel), service prefix indicator (e.g., 0-, 0+, 01+ or 011+) or service access code (e.g., 900). It is provided in suitably equipped end office or access tandem switches. It is available with Feature Groups C and D.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(L) Alternate Traffic Routing

When the customer orders both Direct Trunked Transport and Tandem Switched Transport at the same end office, this option provides the capability of directing originating traffic from an end office (or appropriately equipped access tandem) to a trunk group (the "high usage" group) to a customer designated premises until that group is fully loaded, and then delivering additional originating traffic (the "overflowing" traffic) from the same end office or access tandem to a different trunk group (the "final" group) to a second customer designated premises. The customer shall specify the last trunk CCS desired for the high usage group. It is provided in suitably equipped end office or access tandem switches. It is available with Feature Groups B, C and D.

(M) Trunk Access Limitation

This option provides for the routing of originating 900 service calls to a specified number of transmission paths in a trunk group, in order to limit (choke) the completion of such traffic to the customer. Calls to the designated service which could not be completed over the subset of transmission paths in the trunk group, i.e., the choked calls, would be routed to reorder tone. It is provided in all Telephone Company electronic end offices and where available in electromechanical end offices. It is available with Feature Groups C and D.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(N) Call Gapping Arrangement

This option, provided in suitably equipped end office switches, provides for the routing of originating calls to 900 service to be switched in the end office to all transmission paths in a trunk group at a prescribed rate of flow, e.g., one call every five seconds, in order to limit (choke) the completion of such traffic to the customer. Calls to the designated service which are denied access by this feature, i.e., the choked calls, would be routed to a no-circuit announcement. It is provided in selected Feature Group D equipped end offices and is available only with Feature Group D.

(O) International Carrier Option

This option allows for Feature Group D end offices or access tandem switches equipped for International Direct Distance Dialing to be arranged to forward the international calls of one or more international carriers to the customer (i.e., the Telephone Company is able to route originating international calls to a customer other than the one designated by the end user either through presubscription or 101XXXX dialing). This arrangement requires provision of written verification to the Telephone Company that the customer is authorized to forward such calls. The written verification must be in the form of a letter of agency authorizing the customer to order the option on behalf of the international carrier. This option is only provided at Telephone Company end offices or access tandems equipped for International Direct Distance Dialing, and is available with Feature Group D.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(P) Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option, which is provided in association with two or more Special Access Service groups, provides for the automatic overflow of terminating calls to a second Special Access Service group, when the first group has exceeded its call capacity. This option is available with Feature Groups A, B, C and D.

(Q) End Office End User Line Service Screening for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option provides the ability to verify that an end user has dialed a called party address (by screening the called NPA and/or NXX on the basis of geographical bands selected by the Telephone Company) which is in accordance with that end user's service agreement with the customer, e.g., WATS. This option is provided in all Telephone Company electronic end offices and, where available, in electromechanical end offices which are designated as WATS Serving Offices. It is available with Feature Groups C and D.

(R) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option provides the ability to sequentially access one of two or more Special Access Services utilized in the provision of WATS services (e.g., 800/888/877 Service Special access services) in the terminating direction, when the hunting number of the Special Access Service group is forwarded from the customer to the Telephone Company. This feature is provided in all Telephone Company designated WATS Access Serving Offices. It is available with Feature Groups A, B, C and D.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(S) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option provides a type of multiline hunting arrangement which provides for an even distribution of terminating calls among the available Special Access Lines utilized in the provision of WATS or WATS-Type Services in the hunt group. Where available, this feature is only provided in Telephone Company designated WATS Serving Offices. It is available with Feature Groups A, B, C and D.

(T) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option provides an arrangement for an individual Special Access Service utilized in the provision of WATS or WATS-Type Services within a multiline hunt or uniform call distribution group that provides access to that Special Access Service within the hunt or uniform call distribution group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed, without hunting to the next idle number. Where available, this feature is only provided in Telephone Company designated WATS Serving Offices. It is available with Feature Groups A, B, C and D.

(U) Digital Switched 56 Service

This option provides for a connection between a customer's premise and a suitably equipped end user's premise which uses end office switching and facilities capable of transmitting digital data up to 56 kilobits per second. Digital Switched 56 Service is only available in appropriately provisioned Feature Group C and Feature Group D offices as set forth in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(V) Multifrequency Address Signaling

Multifrequency Address Signaling is available as an optional feature with FGC and FGD. This feature provides for the transmission of number information and control signals (e.g., number address signals, automatic number identification) between the end office switch and the customer's premises (in either direction). Multifrequency signaling arrangements make use of pairs of frequencies out of a group of six frequencies. Specific information transmitted is dependent upon feature group and call type (i.e., POTS, coin or operator). This feature is not available in combination with SS7 signaling.

(W) Signaling System 7 (SS7) Signaling

This feature provides common channel out of band transmission of address and supervisory SS7 protocol signaling information between the end office switch or the tandem office switching system and the customer's designated premises. The signaling information is transmitted over facilities provided with the Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC) as specified in 6.1.3(A) preceding. This feature is available with FGC and FGD and will be provided in accordance with the SS7 Interconnect specifications described in Technical Reference TR-TSV-000905.

(X) Calling Party Number (CPN)

This feature provides for the automatic transmission of the ten digit telephone number, associated with a calling station, to the customer's premises for calls originating in the LATA. The ten digit telephone number consists of the NPA plus the seven digit telephone number, which may or may not be the same number as the calling station's charge number. The ten digit telephone number will be coded as presented, or restricted via a "privacy indicator" for delivery to the called end user. This feature is provided with originating FGC and FGD with SS7 signaling. CPN is available where technically feasible.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(X) Calling Party Number (CPN) (Cont'd)

(1) Restrictions on Use and Sale of CPN

(a) Access customers of this tariff may use CPN in the following manner:

(i) For billing and collection information, for routing, screening, and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use CPN to offer a product or service that is directly related to the products or services previously acquired originating subscriber.

(b) Access customers of this tariff may not use CPN in the following manner:

(i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber and obtaining the affirmative consent of such subscriber or such reuse or sale.

(ii) Disclosing (except as permitted in (a), preceding) any information derived from the CPN for any purpose other than 1) performing the services or transactions that are the subject call, 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling with applicable law or legal process

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(Y) Carrier Selection Parameter (CSP)

This feature provides for the automatic transmission of a signaling indicator which signifies to the customer whether or not the call being processed originated from a presubscribed line. If the line was presubscribed, the indicator will signify if the end user did or did not dial 101XXXX. This feature is provided with originating FGD with SS7 signaling. (C)

(Z) Charge Number Parameter (CNP)

The CN Parameter is equivalent to the existing ten digit Automatic Number Identification (ANI) available with FGC where technically feasible and FGD with MF signaling. The CN Parameter provides for the automatic transmission of the ten digit billing number of the calling station and the originating line information. This feature is provided with originating FGC and FGD with SS7 signaling.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(Z) Charge Number Parameter (CNP) (Cont'd)

(1) Restrictions on Use and Sale of CNP

(a) access customers of this tariff may use CNP in the following manner:

(i) For billing and collection information, for routing, screening and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use CNP to offer a product or service that is directly related to the products or services previously acquired from the customer by the originating subscriber.

(b) Access customers of this tariff may not use CNP in the following manner:

(i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber and obtaining the affirmative consent of such subscriber for such reuse or sale.

(ii) Disclosing, except as permitted in (a), preceding, any information derived from the CNP for any purpose other than 1) performing the services or transactions that are the subject of the originating subscriber's call, 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling, using, and disclosing aggregate information, and 4) complying with applicable law or legal process.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.2 Transport Termination Nonchargeable Optional Features

(A) Rotary Dial Station Signaling

This option provides for the transmission of called party address signaling from rotary dial stations to the customer designated premises for originating calls. This option is provided in the form of a specific type of Transport Termination. It is available with Feature Group B, only on a directly trunked basis.

(B) Operator Trunk - Coin, Non-Coin, or Combined Coin and Non-Coin

This option may be ordered to provide coin, non-coin, or combined coin and non-coin operation. It is available only with Feature Group C and is provided in electronic end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of Transport Termination.

Coin, Non-Coin

This arrangement provides for initial coin return control, except in the case of non-coin, and routing of 0+, 0-, 1+, 01+ or 011+ prefixed originating coin and non-coin calls requiring operator assistance to the customer designated premises. Because operator assisted coin calling traffic is routed over a trunk group dedicated to operator assisted calls, this arrangement is only provided in association with the Service Class Routing option.

This arrangement is normally ordered by the customer in conjunction with the ANI optional feature, since the preponderance of trunk groups equipped with this arrangement will be terminated in the customer's automated operator services systems, rather than in the customer's manual cord boards.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.2 Transport Termination Nonchargeable Optional Features (Cont'd)

(B) Operator Trunk - Coin, Non-Coin, or Combined Coin and Non-Coin (Cont'd)

Combined Coin and Non-Coin

When so equipped, the ANI optional feature provides for the forwarding of information digits which identify that the call has originated from a hotel or motel, and whether room number identification is required, or that special screening is required, e.g., for coinless, dormitory, or inmate stations, or other screening arrangements agreed to between the customer and the Telephone Company.

(C) Operator Trunk - Full Feature

This option provides the initial coin return control function to the customer's operator. It is available with Feature Group D and is provided as a trunk type for Transport Termination. This feature is not available with SS7 signaling.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features

(A) Interim NXX Translation

This service is an originating offering utilizing trunk side Switched Access Service and provides a customer identification function based on the dialed SAC and NXX code.

For example, when a 1+900+NXX-XXXX call is originated by an end user, the Telephone Company will perform the customer identification function based on the dialed digits to determine the customer location to which the call is to be routed. If the call originates from an end office switch not equipped to provide the customer identification function, the call will be routed to an office at which the function is available. Once customer identification has been established, the call will be routed to that customer. Calls originating from an end office switch at which the customer identification function is performed, but to which the customer has not ordered Interim NXX Translation, will be blocked. Calls to a 900 number from coin telephones, 0+, 0-, 101XXXX, Inmate Service, Hotel/Motel Service and calling card calls will be blocked.

Calls to a 900 number dialed via 1+ from coin telephones, 0-, 101XXXX, Inmate Service, and Hotel/Motel Service will be blocked. Calls to a 900 number dialed via 0+ will normally be blocked. Orders received from customers to unblock 0+ calls to a 900 number will be accommodated where suitably equipped facilities exist.

The manner in which Interim NXX Translation is provided is dependent on the status of the end office from which the service is provided (i.e., equipped with equal access capabilities or not equipped with equal access capabilities). When Interim NXX Translation is provided from an end office not equipped with equal access capabilities, it will be provided in conjunction with FGC Switched Access Service.

The charge for Interim NXX Translation is as set forth in 17.2.1(C) following.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features (Cont'd)

(B) Reserved For Future Use

(C) Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC)

Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection Service (CCSNC), which is available with Feature Group C and D, where technically feasible as designated in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC NO. 4, WIRE CENTER INFORMATION, provides a signaling path between a customer's designated Signaling Point of Interface (SPOI) and a Signaling Transfer Point (STP). This service provides customers with the use of a two-way signaling path for accessing information necessary for the completion of their end user's calls.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features (Cont'd)

(C) Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC) (Cont'd)

CCS/SS7 Network Connection Service is comprised of two parts; a Signaling Network Access Link (SNAL, consisting of Signaling Mileage Facility, Signaling Mileage Termination and Signaling Entrance Facility) and a Signaling Transfer Point (STP) Port. The SNAL is provided as a dedicated 56 Kpbs out-of-band signaling connection between the customer's SPOI and the STP Port on the STP.

The CCS/SS7 Network Connection Service is provisioned by a mated pair of STPs as described in Technical Reference TR-TSV 000905 in order to ensure network availability and reliability. The Telephone Company shall not be held liable for service outages if the customer employs technology related to the interconnection of signaling networks that do not adhere to generally accepted industry technical standards.

When CCS/SS7 Network Connection service is provisioned for use with SS7 Signaling, interconnection between signaling networks must occur at an STP.

(D) 800/888/877 Data Base Access Service

800/888/877 Data Base Access Service is provided with FGC or FGD switched access service. When a 1+800+NXX-XXXX, 1+888+NXX+XXXX or a 1+877+NXX+XXXX call is originated by an end user, the Telephone Company will utilize the Signaling System 7 (SS7) network to query an 800/888/877 data base to perform the identification function. The call will then be routed to the identified customer over FGC or FGD switched access.

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features (Cont'd)

(D) 800/888/877 Data Base Access Service (Cont'd)

The manner in which 800/888/877 data base access service is provided is dependent on the availability of SS7 service at the end office from which the service is provided as outlined following:

- When 800/888/877 data base access service originates at an end office equipped with Service Switching Point (SSP) capability for querying centralized data bases or at a non-SSP equipped end office that can accommodate direct trunking of originating 800/888/877 calls, all such service will be provisioned from that end office.

- When 800/888/877 data base access service originates at an end office not equipped with SSP customer identification capability, the 800/888/877 call will be delivered to the access tandem on which the end office is homed for 800/888/877 service and which is equipped with the SSP feature to query centralized data bases.

Query charges as set forth in 17.2.2 following are in addition to those charges applicable for the Feature Group C or Feature Group D switched access service.

(E) Flexible Automatic Number Identification (Flex ANI)

The Flex ANI feature is an optional switching feature and enhancement to ANI. This option is provided per end office on a Carrier Identification Code (CIC) basis and is available with Feature Group D service at end offices capable of providing this feature, as listed in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C NO. 4.

Flex ANI is available on inband signaling or in the Originating Line Information Parameter in the Basic Initial Address Message (IAM) Delivery optional feature for SS7 signaling. Flex ANI provides additional values for the Information Indicator (ii) digits that are associated with various classes of service not available with the standard ANI digits. The customer must have ANI in order to have Flex ANI.

Switched Access Service

6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features (Cont'd)

(F) Carrier Identification Parameter (CIP)

This feature enables customers to consolidate trunk groups to provide Equal Access connections for the carrier and its reseller carriers over one trunk group. The Carrier Identification Parameter (CIP) software delivers the Carrier Identification Code (CIC) in the initial address message (IAM) from an originating local exchange network on Feature Group D (FGD), SS7-supported calls. These calls include CIP for FGD, 700, 900+NXX & 800/888/877 Database type calls. Presubscribed carrier information in CIP will be used for normal 1+ presubscribed calls. This enables the information to be sent in the forward direction to the transit network indicating the transit network selected by the originating subscriber. This feature is offered on a per-carrier basis, see Section 17.2.2 for rates.

Special Access Service

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Special Access Service

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Windstream South Carolina, Inc.

ISSUED: July 17, 2006

BY: Vice President

Section 7
Original Page 1

EFFECTIVE: July 17, 2006

Special Access Service

7.1 General

Special Access Service provides a transmission path to connect customer designated premises*, directly, through a Telephone Company hub or hubs where bridging or multiplexing functions are performed. Special Access Service includes all exchange access not utilizing Telephone Company end office switches, except for the closed end of WATS.

The connections provided by Special Access Service can be either analog or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate.

7.1.1 Channel Types

There are seven types of channels used to provide Special Access Services. Each type has its own characteristics. All are subdivided by one or more of the following:

- Transmission specifications,
- Bandwidth,
- Speed (i.e., bit rate),
- Spectrum

Customers can order a basic channel and select from a list of available transmission parameters and channel interfaces that they desire in order to meet specific communications requirements.

For purposes of ordering channels, each has been identified as a type of Special Access Service. Each type of Special Access Service is specifically listed on the following page and identifies the specific bandwidth and speed being offered. The customer must select the appropriate service that provides the speed and bandwidth desired.

* Telephone Company Centrex CO and CO-like switches and packet switches included in Public Packet Switching Network (PPSN) Service are considered to be a customer designated premises for purposes of this tariff.

Special Access Services

7.1 General (Cont'd)

7.1.1 Channel Types (Cont'd)

Following is a brief description of each type of channel:

Metallic - a channel for the transmission of low speed varying signals at rates up to 30 baud. This channel type will be grandfathered for customers of record as of January 16, 2000. It will not be available to new customers after January 16, 2000.

Telegraph Grade - a channel for the transmission of binary signals at rates of 0 to 75 baud or 0 to 150 baud. This channel type will be grandfathered for customers of record as of January 16, 2000. It will not be available to new customers after January 16, 2000.

Voice Grade - a channel for the transmission of analog signals within an approximate bandwidth of 300 to 3000 Hz.

Program Audio - a channel for the transmission of audio signals. The nominal frequency bandwidths are from 200 to 3500 Hz, from 100 to 5000 Hz, from 50 to 8000 Hz, or from 50 to 15000 Hz.

Video - a channel for the transmission of standard 525 line 60 field monochrome or National Television Systems Committee color video signal and one or two associated 5 or 15 kHz audio signals. The bandwidth is either 30 Hz to 4.5 MHz or 30 Hz to 6.6 MHz.

Digital Data - a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps.

High Capacity - a channel for the transmission of isochronous serial digital data at rates of 1.544, 3.152, 6.312, 44.736 or 274.176 Mbps.

Special Access Service

7.1 General (Cont'd)

7.1.1 Channel Types (Cont'd)

Detailed descriptions of each of the channel types are provided in 7.4 through 7.10 following.

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps, 3.152 Mbps, 6.312 Mbps, 44.736 Mbps and 274.176 Mbps) to Telephone Company hubs for multiplexing to individual channels of a lower capacity or bandwidth. Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility, are set forth in 7.6 and 7.10 following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet specific communications requirements. Descriptions of the optional features and functions available are set forth in 7.2.1 following.

For example, a customer may order a 3.152 Mbps High Capacity channel from a customer designated premises to a Telephone Company hub for multiplexing to two 1.544 Mbps channels. The 1.544 Mbps channels may be further multiplexed at the same or a different hub to Voice Grade channels or may be extended to other customer designated premises or hubs. Optional features may be added to either the 1.544 Mbps or the Voice Grade channels.

Special Access Service

7.1 General (Cont'd)

7.1.2 Service Descriptions

For the purposes of ordering, there are seven categories of Special Access Service. These are:

	Service Designator Codes
Metallic	MT
Telegraph Grade	TG
Voice	VG
Program Audio	AP
Video	TV
Digital Data	DA
High Capacity	HC

Each service consists of a basic channel to which a technical specifications package (customized or predefined), channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Technical specifications packages are described in Section 15. following, optional features and functions are described in this section. Channel interfaces are described in 15.2 following.

Customized technical specifications packages will be provided where technically feasible. If the Telephone Company determines that the requested parameter specifications are not compatible, the customer will be advised and given the opportunity to change the order.

When a customized channel is ordered the customer will be notified whether Additional Engineering Charges apply. In such cases, the customer will be advised and given the opportunity to change the order.

The channel descriptions provided in 7.4 through 7.10 following, specify the characteristics of the basic channel and indicate whether the channel is provided between customer designated premises, between a customer designated premises and a Telephone Company hub where bridging or multiplexing functions are performed, between hubs, or between a customer designated premises and a WATS Serving Office.

Special Access Service

7.1 General (Cont'd)

7.1.2 Service Descriptions (Cont'd)

(A) Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in matrices set forth in 15.2 following.

(B) Channel interfaces at each Point of Termination on a two- point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel inter- faces are compatible. These are set forth in 15.2. following, in a combination format.

(C) Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth in (F) following. When a customized channel is requested, all channel interface combinations available with the specified type of service are available with the customized channel.

(D) The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in matrices set forth in 15.2 following with the optional feature or function listed down the left side and the technical specifications package listed across the top.

Special Access Service

7.1 General (Cont'd)

7.1.2 Service Descriptions (Cont'd)

(E) The Telephone Company will maintain services installed prior to April 1, 1985, at their existing transmission specifications, provided such performance specifications do not exceed the standards listed in this provision. Those services exceeding the standards listed will be maintained at the performance levels specified in this tariff.

(F) All services installed after April 1, 1985 will conform to the transmission specification standards contained in this tariff or in the following Technical References for each category of service:

Metallic	TR-NPL-000336
Telegraph Grade	TR-NPL-000336
Voice Grade	TR-TSY-000335 PUB 41004, Table 4
Program Audio and associated Addendum	TR-NPL-000337
Video	TR-NPL-000338
Digital Data	TR-NWT-000341
For 2.4, 4.8, 9.6 & 56.0 Kpbs	BellCore Pub 62310 (MDP-326-726)
For 19.2 Kpbs	INC Bulletin CB-INC-100
For 64.0 Kpbs	AT&T PUB 62310
High Capacity	TR-INS-000342 TR-NPL-000054 PUB 62411

7.1.3 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint service.

(A) Two-Point Service

A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where multiplexing functions are performed, or a customer designated premises and a WATS Serving Office (WSO).

Applicable rate elements are:
- Channel Terminations
- Channel Mileage (as applicable)
- Optional Features and Functions (when applicable)

Special Access Service

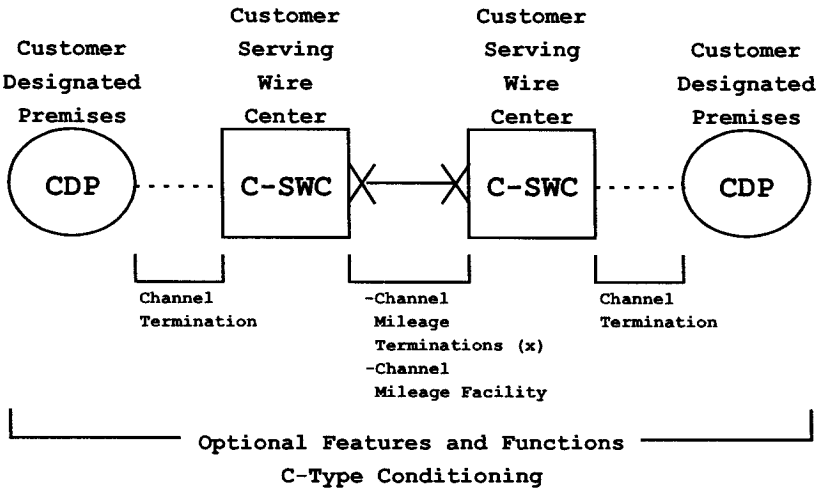
7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(A) Two-Point Service (Cont'd)

A Special Access Surcharge, as set forth in 7.3 following may be applicable.

The following diagram depicts a two-point Voice Grade service connecting two Customer Designated Premises (CDP). The service is provided with C-Type conditioning.



Applicable rate elements are:

- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
  - . 2 Channel Mileage Terminations plus
  - . 1 section, Channel Mileage Facility per mile
- C-Type Conditioning Optional Feature

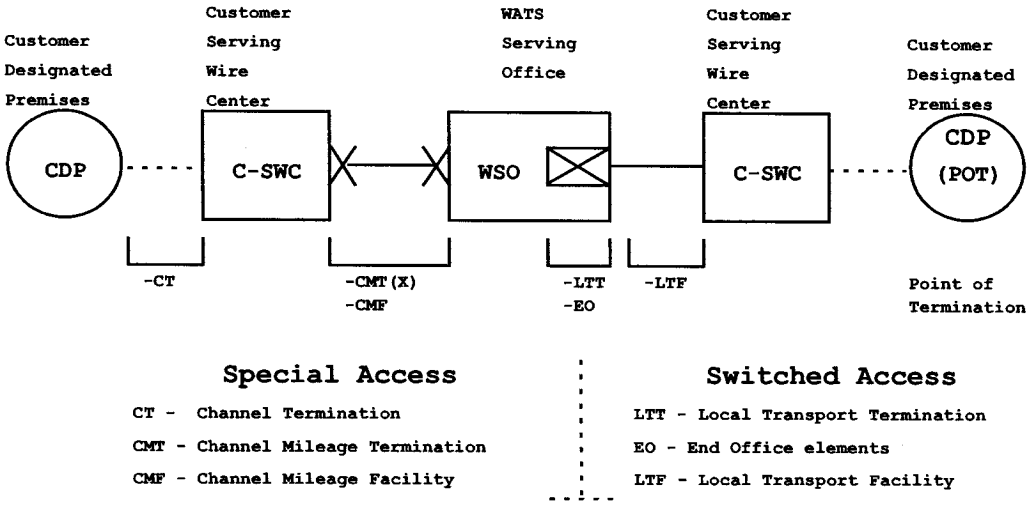
Special Access Service

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(A) Two-Point Service (Cont'd)

The following diagram depicts a two-point Voice Grade service connecting a customer designated premises to a WATS serving office.



Applicable rate elements for Special Access are:

- Channel Termination
- Channel Mileage
  - . 2 Channel Mileage Terminations plus
  - . 1 section, Channel Mileage Facility per mile
- Special Access Surcharge*

* May not apply if exemption certificate is provided.

Special Access Service

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service

Multipoint service connects three or more customer designated premises through one or more Telephone Company hubs. Only certain types of Special Access Service are provided as multipoint service. These are so designated in the descriptions for the appropriate channel.

The channel between hubs (i.e., bridging locations) on a multipoint service is a mid-link. There is no limitation on the number of mid-links available with a multipoint service. However, when more than three mid-links in tandem are provided the quality of the overall service may be degraded.

Multipoint service utilizing a customized technical specifications package, as set forth in 7.1.2 preceding and 15.2 following, will be provided when technically possible. If the Telephone Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

When ordering, the customer will specify the desired bridging hub(s). NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. NO. 4 identifies serving wire centers, hub locations and the type of bridging functions available.

Applicable Rate Elements are:

- Channel Terminations (one per customer designated premises)
- Channel Mileage (as applicable between the serving wire center for each customer designated premises and the hub and between hubs).
- Bridging
- Additional Optional Features and Functions (when applicable).

Special Access Service

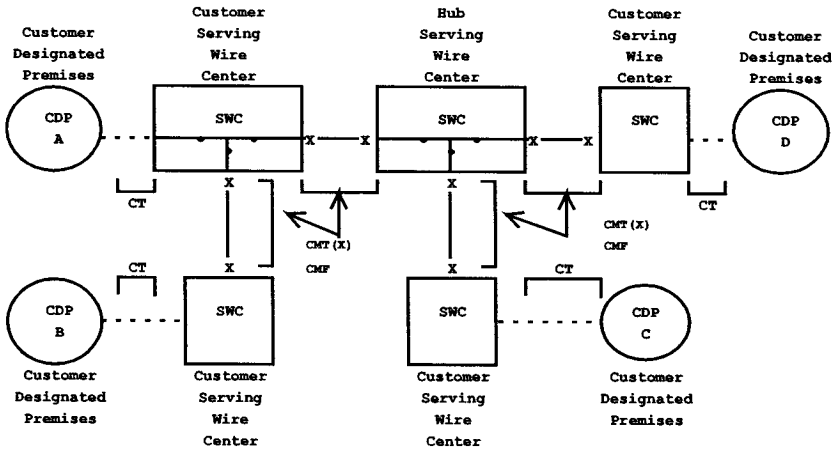
7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service (Cont'd)

The Special Access Surcharge, as set forth in 7.3 following may be applicable.

Example: Voice Grade multipoint service connecting four customer designated premises (CDP) via two customer specified bridging hubs.



Applicable rate elements are:

- Channel Terminations (4 applicable)
- Channel Mileage
  - o 2 Channel Mileage Terminations per Channel Mileage Facility section for a total of 8, plus
  - o 4 sections, Channel Mileage Facility per mile
- Bridging Optional Feature (6 applicable, i.e., each bridge port)

Special Access Service

7.1 General (Cont'd)

7.1.4 Alternate Use

Alternate Use occurs when a service is arranged by the Telephone Company so that the customer can select different types of transmission at different times. A customer may use a service in any private beneficial manner. However, where technical or engineering changes are required to effectuate an alternate use, the Telephone Company will make such special arrangements available on an individual case basis.

The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12. following, Specialized Service or Arrangements. The customer will pay the stated tariff rates for the Access Service rate elements for the service ordered [i.e., Channel Terminations, Channel Mileage (as applicable) and Optional Features and Functions (if any)].

7.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access Service may be specially routed. The regulations, rates and charges for Special Facilities Routing (i.e., Avoidance, Diversity and Cable-Only) are set forth in Section 11. following.

7.1.6 Design Layout Report

At the request of the customer, the Telephone Company will provide to the customer the make-up of the facilities and services provided under this tariff as Special Access Service to aid the customer in designing its overall service. This information will be provided in the form of a Design Layout Report. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever these facilities are materially changed.

Special Access Service

7.1 General (Cont'd)

7.1.7 Acceptance Testing

At no additional charge, the Telephone Company will, at the customer's request, cooperatively test the following at the time of installation:

(A) For Voice Grade analog services, acceptance test will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise, and C-message noise when these parameters are applicable and specified in the order of service. Additionally, for Voice Grade services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.

(B) For other analog services (i.e., Metallic, Telegraph, Program Audio, and Video) and for digital services (i.e., Digital Data and High Capacity), acceptance tests will include tests applicable to the service as specified by the customer in the order for service.

In addition to the above tests, Additional Cooperative Acceptance Testing for Voice Grade service to test other parameters, as described in 13.3.1(B) following, is available at the customer's request. All test results will be made available to the customer upon request.

7.1.8 Ordering Options and Conditions

Special Access Service is ordered under the Access Order provisions set forth in Section 5. preceding. Also included in that section are other charges which may be associated with ordering Special Access Service (e.g., Service Date Change Charges, Cancellation Charges, etc.).

Special Access Service

7.2 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for Special Access.

7.2.1 Rate Categories

There are three basic rate categories which apply to Special Access Service:

- Channel Terminations (described in 7.2.1(A) following)
- Channel Mileage (described in 7.2.1(B) following)
- Optional Features and Functions (described in 7.2.1(C) following).

(A) Channel Terminations:

The Channel Termination rate category recovers the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Channel Termination is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any. The signaling capability is provided as an optional feature as set forth in (C) following. One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

For DS3 High Capacity Service, the Channel Termination rates are made up of the DS3 Capacity Interface rate and the DS3 Channel Installed rate. The Capacity Interface rate is dependent upon the capacity ordered (i.e., Capacity Interface of 1, 3, 6 or 12) and is applicable at each customer designated premises (e.g., a capacity of 3 can terminate 1, 2, or 3 DS3 services). One DS3 Channel Installed rate applies per customer designated premises at which the channel is terminated for each DS3 channel that is ordered. These charges will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

* The Channel Termination, Channel Mileage Termination and Channel Mileage Facility Special Access rate elements should not be applied to intrastate WATS and 800/888 dedicated services. The billing of these dedicated services (WATS and 800/888) should be in accordance with the rates of the Southwestern Bell WATS tariff. Also, the Special Access Surcharge should not be applied to the intrastate WATS and 800/888 services.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Channel Mileage

The Channel Mileage rate category recovers the costs associated with the end office equipment and the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company hub or between two Telephone Company hubs. Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate.

(1) Channel Mileage Facility

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s).

(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). The Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and Telephone Company hub where the channel is terminated. If the Channel Mileage is between Telephone Company bridging hubs, the Channel Mileage Termination rate will apply per Telephone Company designated hub. If the Channel Mileage is between the serving wire center for a customer designated premises and a WATS Serving Office, the Channel Mileage Termination rate will apply at both the serving wire center associated with the customer designated premises and the WATS Serving Office. When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

* The Channel Termination, Channel Mileage Termination and Channel Mileage Facility Special Access rate elements should not be applied to intrastate WATS and 800/888 dedicated services. The billing of these dedicated services (WATS and 800/888) should be in accordance with the rates of the Southwestern Bell WATS tariff. Also, the Special Access Surcharge should not be applied to the intrastate WATS and 800/888 services.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.1. Rate Categories (Cont'd)

(C) Optional Features and Functions

The Optional Features and Functions rate category recovers the costs associated with optional features and functions which may be added to a Special Access Service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, they will be charged for as a single rate element.

Examples of Optional Features and Functions that are available include, but are not limited to, the following:

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

Descriptions for each of the available Optional Features and Functions are set forth in 7.4 through 7.10 following.

A hub is a Telephone Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed are to connect three or more customer designated premises in a multipoint arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.

NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 identifies serving wire centers, Hub locations, hub level, (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of bridging or multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges

There are three types of rates and charges. These are monthly rates, daily rates and nonrecurring charges. The rates and charges are described as follows:

(A) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a Special Access Service is provided. For billing purposes, each month is considered to have 30 days.

(B) Daily Rates

Daily rates are recurring rates that apply to each 24 hour period or fraction thereof that a Program Audio or Video Special Access Service is provided for part-time use. For purposes of applying daily rates, the 24 hour period is not limited to a calendar day.

Part-time Video or Program Audio Service provided within a consecutive 30 day period will be charged the daily rate, not to exceed the monthly rate. For each day or partial day after a consecutive 30 day period of service, a charge equal to 1/30th of the monthly rate shall apply.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Special Access Service are: installation of service, installation of optional features and functions, and service rearrangements. These charges are in addition to the Access Order Charge as specified in 17.4.1 following.

(1) Installation of Service

Nonrecurring charges apply to each service installed. The nonrecurring charges for the installation of service are set for each channel type as a nonrecurring charge for the Channel Termination.

(2) Installation of Optional Features and Functions

When optional features and functions are installed coincident with the initial installation of service, no separate nonrecurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in 17.4.1 following will apply per order.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges (Cont'd)

(3) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service. Changes to pending orders are set forth in 5.4 preceding.

Changes in the physical location of the point of termination or customer designated premises are moves as set forth in 7.2.3 following.

Changes in the type of Service or Channel Termination which result in a change of the minimum period requirement will be treated as a discontinuance of the service and an installation of a new service.

Changes in ownership or transfer of responsibility from one customer to another will be treated as a discontinuance of the service and an installation of a new service. In the event the change in ownership or transfer of responsibility is as set forth in 2.1.2(A) preceding where there is no change in facilities or arrangements, the change will be treated as an administrative change.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges (Cont'd)

(3) Service Rearrangements (Cont'd)

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of a physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer test line number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

All other service rearrangements will be charged for as follows:

- If the change involves the addition of other customer designated premises to an existing service, the nonrecurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge as set forth in 17.4.1 following.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges (Cont'd)

(3) Service Rearrangements (Cont'd)

- If the change involves the addition of an optional feature or function, (with the exception of the addition of Clear Channel Capability to an existing service), or if the change involves changing the type of signaling on a Voice Grade service, and for all other changes, the Access Order Charge as set forth in 17.4.1 following will apply.

  When the Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated non-recurring charges will apply.

7.2.3 Moves

A move involves a change in the physical location of one of the following:

- The Point of Termination at the customer's premises
- The customer's premises

The charges for the move are dependent on whether the move is to a new location with the same building or to a different building.

(A) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in 17.4.1 following.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.3 Moves (Cont'd)

(B) Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

7.2.4 Minimum Periods

The minimum service period for all services except part-time Video and Program Audio services and DS3 High Capacity Service is one month and the full monthly rate will apply to the first month. Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in 2.4.1(F) preceding. The minimum service period for part-time Video and Program Audio services is a continuous 24-hour period, not limited to a calendar day. The minimum service period for DS3 High Capacity service is twelve months.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.5 Mileage Measurement

The mileage to be used to determine the monthly rate for the Channel Mileage Facility is calculated on the airline distance between the locations involved, i.e.,

- the serving wire centers associated with two customer designated premises,
- a serving wire center associated with a customer designated premises and a Telephone Company hub,
- two Telephone Company hubs
- or between the serving wire center associated with a customer designated premises and a WATS Serving Office.

The serving wire center associated with a customer designated premises is the serving wire center from which this customer designated premises would normally obtain dial tone.

Mileage charges are shown with each channel type. To determine the rate to be billed, first compute the mileage using the V&H coordinates method, as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4, then multiply the resulting number of miles times the Channel Mileage Facility per mile rate, and add the Channel Mileage Termination rate for each termination. When the calculation results in a fraction of a mile, always round up to the next whole mile before determining the mileage and applying the rates. When more than one Telephone Company is involved in the provision of service, billing will be accomplished as set forth in 2.4.7 preceding.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.5 Mileage Measurement (Cont'd)

When hubs are involved, mileage is computed and rates applied separately for each section of the Channel Mileage, i.e.,

- customer designated premises serving wire center to hub,
- hub to hub and/or
- hub to customer designated premises serving wire center.

However, when any service is routed through a hub for purposes other than customer specified bridging or multiplexing (e.g., the Telephone Company chooses to so route for test access purposes), rates will be applied only to the distance calculated between the serving wire centers associated with the customer designated premises.

See the service configuration example for multipoint service as set forth in 7.1.3(B) preceding.

7.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services (i.e., DS1, DS1C, DS2, DS3 or DS4) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., Telegraph, Voice, Program Audio, etc.).

Different locations may be designated as hubs for different facility capacities, e.g., multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. When placing an Access Order the customer will specify the desired hub. NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 identifies serving wire centers, hub locations, hub level, (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

7.2 Rate Regulations (Cont'd)

7.2.6 Facility Hubs (Cont'd)

Some of the types of multiplexing available include the following:

- from higher to lower bit rate
- from higher to lower bandwidth
- from high capacity to voice frequency channels.

Point to point services may be provided on channels of these services to a hub. The transmission performance for the point to point service provided between customer designated premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps channel is multiplexed to voice frequency channels, the transmission performance of the channelized services will be Voice Grade, not High Capacity.

The Telephone Company will commence billing the monthly rate for the service to the hub on the date specified by the customer on the Access Order. Individual channels utilizing these services may be installed coincident with the installation of the service to the hub or may be ordered and/or installed at a later date, at the option of the customer. The customer will be billed for a Voice Grade or a High Capacity Channel Termination, Channel Mileage (when applicable), and the multiplexer at the time the service is installed. Individual service rates (by service type) will apply for a Channel Termination and additional Channel Mileage (as required) for each channelized service. These will be billed to the customer as each individual service is installed.

Cascading multiplexing occurs when a High Capacity service is de-multiplexed to provide channels with a lesser capacity and one of the lesser capacity channels is further de-multiplexed. For example, a 6.312 Mbps High Capacity service is de-multiplexed to four DS1 channels and then one of the DS1 channels is further de-multiplexed to 24 individual Voice Grade channels.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.6 Facility Hubs (Cont'd)

When cascading multiplexing is performed, whether in the same or a different hub, a charge for the additional multiplexing unit also applies. When cascading multiplexing is performed at different hubbing locations, Channel Mileage charges also apply between the hubs.

The Telephone Company will designate hubs for Program Audio and Video Services. Full-time or part-time service may be provided between customer designated premises or between a customer designated premises and a hub and billed accordingly at the monthly rates set forth in 17.3.5 and 17.3.6 following for a Channel Termination, Channel Mileage and Optional Features and Functions, as applicable. When the service is ordered to a hub, the customer may order full-time or part-time Video and Program Audio services as needed between that hub and additional customer designated premises. The rate elements required to provide the part-time service (i.e., Channel Termination, Channel Mileage and Optional Features and Functions, as applicable) will be billed at daily rates for the duration of the service requested.

Special Access Service

7.2 Rate Regulations (Cont'd)

7.2.7 Mixed Use Analog and Digital High Capacity Services

Mixed use refers to a rate application applicable only when the customer orders High Capacity Special Access facilities between a customer designated premises and a Telephone Company hub where the Telephone Company performs multiplexing/de-multiplexing functions and the same customer then orders the derived channels as Special and Switched Access Services. If the customer has Switched Access Service between a customer designated premises and an end office that is multiplexed at a Telephone Company hub and subsequently orders the derived channels as Special and Switched Access Service, rates and charges will apply as if the service were ordered as mixed use.

Except as noted above, the High Capacity facility will be ordered, provided and rated as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, and Multiplexing Arrangement). The nonrecurring charge that applies when the mixed use facility is installed will be the nonrecurring charge associated with the appropriate Special Access High Capacity Channel Termination. Rating as Special Access will continue until such time as the customer chooses to use a portion of the available capacity for Switched Access Service. Individual service (i.e., Switched or Special Access) nonrecurring charges will not apply to the individual channels of the mixed use facility.

When Special Access Service is provided utilizing a channel of the mixed use facility to a hub, High Capacity rates and charges will apply for the facility to the hub, as set forth preceding, and individual service rates and charges will apply from the hub to the customer designated premises. The rates and charges that will apply to the portion from the hub to the customer designated premises will be dependent on the specific type of Special Access Service that is provided (e.g., Voice Grade, Telegraph, etc.). The applicable rates and charges will include a Channel Termination and Channel Mileage, if applicable. Rates and charges for optional features and functions associated with the service, if any, will apply for the appropriate channel type.

7.2 Rate Regulations (Cont'd)

7.2.7 Mixed Use Analog and Digital High Capacity Services (Cont'd)

As each individual channel is activated for Switched Access Service, the High Capacity Special Access Channel Termination, Channel Mileage, and Multiplexing rates will be reduced accordingly (e.g., 1/24th for a DS1 service, 1/672nd for a DS3 service, etc.).

Switched Access Service rates and charges, as set forth in 17.2 following, will apply for each channel that is used to provide a Switched Access Service. The Switched Access Service Entrance Facility charge, if applicable, will be reduced by multiplying its rate by the ratio of derived Switched Access Service channels to the total number of channels that can be derived. If the Telephone Company is providing Direct Trunked Transport, then the Direct Trunked Transport and Multiplexing Charges will be reduced by multiplying their respective rates by the ratio of derived Direct Trunked Transport channels to the total number of channels that can be derived.

The customer must place an order for each individual Switched or Special Access Service utilizing the Mixed Use Facilities and specify the channel assignment for each such service.

7.2.8 Reserved For Future Use

Special Access Service

7.3 Surcharge for Special Access Service

7.3.1 General

Special Access Services provided under this tariff may be subject to the monthly Special Access Surcharge.

7.3.2 Application

(A) The Special Access Surcharge will apply to each intrastate Special Access Service that terminates on an end user's PBX or other device, where through a function of the device, the Special Access Service interconnects to the local exchange network. Interconnection functions include, but are not limited to, wiring and software functions, bridging, switching or patching of calls or stations. The Surcharge will apply irrespective of whether the interconnection function is performed in equipment located at the customer's premises or in a Centrex CO-type switch.

(B) Special Access Service will be exempted from the Surcharge by the Telephone Company upon receipt of the customer's written certification for the following Special Access Service terminations:

(1) an open-end termination in a Telephone Company switch of an FX line, including CCSA and CCSA-equivalent ONALs; or

(2) an analog channel termination that is used for radio or television program transmission; or

(3) a termination used for TELEX service; or

(4) a termination that by the nature of its operating characteristics could not make use of Telephone Company common lines such as, terminations which are restricted through hardware or software; or

Special Access Service

7.3 Surcharge for Special Access Service (Cont'd)

7.3.2 Application (Cont'd)

(B) (Cont'd)

(5) a termination that interconnects either directly or indirectly to the local exchange network where the usage is subject to Carrier Common Line charges such as, where the Special Access Service accesses only FGA and no local exchange lines, or Special Access Service between customer points of termination, or Special Access Service connecting CCSA or CCSA-type equipment (inter-machine trunks); or

(6) a termination that the customer certifies to the Telephone Company is not connected to a PBX or other device which interconnects the Special Access Service to a local exchange subscriber line.

7.3.3 Exemption of Special Access Service

(A) Special Access Services which are terminated as set forth in 7.3.2(B) preceding will be exempted from the Special Access Surcharge if the customer provides the Telephone Company with written exemption certification. The certification may be provided to the Telephone Company as follows:

- at the time the Special Access Service is ordered or installed;

- at such time as the service is reterminated to a device which does not interconnect to the service to local exchange facilities; or

- at such time as the service becomes associated with a Switched Access Service that is subject to Carrier Common Line Charges.

Special Access Service

7.3 Surcharge for Special Access Service (Cont'd)

7.3.3 Exemption of Special Access Services (Cont'd)

(B) The exemption certification is to be provided by the customer ordering the service. The certification must be signed by the customer or authorized representative and include the category of exemption, as set forth in 7.3.2(B) preceding, for each termination, and the date which the exemption is effective.

(C) The customer shall also notify the Telephone Company when an exempted Special Access Service is changed or reterminated such that the exemption is no longer applicable.

(D) The Telephone Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Telephone Company may withhold exemption of the service until the questions are resolved.

7.3.4 Rate Regulations

(A) The Surcharge will apply as set forth in 7.3.2(A) preceding, except that a surcharge will be assessed on a per voice grade equivalent basis for Special Access Services derived from High Capacity Special Access services as illustrated in the following example:

Special Access Service	Voice Grade Equivalent		Surcharge		Monthly Charge
DS1	24	x	$25	=	$600.00

The preceding example illustrates the maximum number of surcharges applicable to a DS1. If the customer claims exemption(s) as set forth in 7.3.3 preceding or, is not utilizing all available voice grade equivalents and has spare capacity, the number of surcharges would be reduced accordingly.

In the case of multipoint Special Access Services, one Special Access Surcharge will apply for each termination of a Special Access Channel at an end user's premises.

Special Access Service

7.3 Surcharge for Special Access Service (Cont'd)

7.3.4 Rate Regulations (Cont'd)

(B) The Telephone Company will bill the appropriate Special Access Surcharge to the ordering customer for each intrastate Special Access Service installed unless exemption certification is provided as set forth in 7.3.3 preceding.

(C) If a written certification is not received at the time the Special Access Service is obtained, the Surcharge will be applied. Exempt status will become effective on the certification date indicated by the customer, subject to the regulations set forth in (D) following.

(D) Crediting the Surcharge

The Telephone Company will cease billing the Special Access Surcharge when certification, as set forth in 7.3.3 pre- ceding, is received. If the status of the Special Access Service was changed prior to receipt of the exemption certification, the Telephone Company will credit the customer's account, not to exceed ninety (90) days, based on the effective date of the change as specified by the customer in the letter of certification.

(E) The Special Access Surcharge should not be applied to intrastate WATS and 800/888 services.

7.4 Metallic Service

7.4.1 Basic Channel Description

A Metallic channel is an unconditioned two-wire channel arranged to transmit direct current and capable of transmitting low speed varying signals at rates up to 30 baud. This channel is provided by metallic or equivalent facilities. Metallic channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs where bridging functions are performed. Interoffice metallic facilities will be limited in length to a total of five miles per channel.

Metallic Special Access Services are typically used for applications such as alarm, pilot wire protective relaying, and dc tripping protective relaying. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Metallic Service are as set forth in 17.3.2 following.

7.4.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(A) following. Compatible network channel interfaces are set forth in 15.2.2(C)(1) following.

7.4.3 Optional Features and Functions

Central Office Bridging Capability

(A) Three Premises Bridging-Provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a third customer designated premises.

(B) Series Bridging of up to 26 customer designated premises.

The table set forth in 15.2.1(A) following shows the technical specifications packages with which the optional features and functions are available.

Special Access Service

7.5 Telegraph Grade Service

7.5.1 Basic Channel Description

Telegraph Grade channel is an unconditioned channel capable of transmitting binary signals at rates of 0-75 baud or 0-150 baud. This channel is furnished for half-duplex or duplex operation. Telegraph Grade channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Telegraph Grade Special Access Services are typically used for applications such as teletypewriter, telegraph grade control/remote metering, telegraph grade channel, telegraph grade extension, and telegraph grade entrance facilities. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Telegraph Grade Service are as set forth in 17.3.3 following.

7.5.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(B) following. Compatible network channel interfaces are set forth in 15.2.2(C)(2) following.

7.5.3 Optional Features and Functions

Telegraph Bridging (two-wire and four-wire)

The table set forth in 15.2.1(B) following shows the technical specifications packages with which the optional features and functions are available.

Special Access Service

7.6 Voice Grade Service

7.6.1 Basic Channel Description

A Voice Grade channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated as two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Telephone Company hub or hubs, or between a customer designated premises and a WATS Serving Office (WSO).

Voice Grade Special Access Services are typically used for voice and voiceband data applications. Typical examples of voice grade circuits are Foreign Exchange lines (station end only), multipoint private line, voice trunk type, two-point voice grade data, (one-way or simultaneous two-way), multipoint voice grade data, and voice grade telephoto or facsimile. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Voice Grade Service are as set forth in 17.3.4 following.

7.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(C) following. Compatible network channel interfaces are set forth in 15.2.2(C)(3) following.

7.6.3 Optional Features and Functions

(A) Central Office Bridging Capability

(1) Voice Bridging (two-wire and four-wire)

(2) Data Bridging (two-wire and four-wire)

(3) Telephoto Bridging (two-wire and four-wire)

(4) DATAPHONE Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(A) Central Office Bridging Capability (Cont'd)

(5) Telemetry and Alarm Bridging

Split Band, Active Bridging
Passive Bridging
Summation, Active Bridging

The rates for these options are set forth in 17.3.4(C)(1)(e) following.

(B) Central Office Multiplexing

Voice to Telegraph Grade. An arrangement that converts a Voice Grade channel to Telegraph Grade channels using frequency division multiplexing.

The rate for this option is set forth in 17.3.4(C)(5) following.

(C) Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for these options are set forth in 17.3.4(C) following.

For two-point services, the parameters apply to each service as measured end-to-end. For multipoint services, the parameters apply as measured on each mid-link or as measured on each end link. C-Type conditioning and Data Capability may be combined on the same service.

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(C) Conditioning (Cont'd)

(1) C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion and envelope delay distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are delineated in Technical Reference TR-TSY-000335.

(2) Improved Attenuation Distortion*

Improved Attenuation Distortion upgrades the frequency versus loss limits of the channel. The technical specifications for Improved Attenuation Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

(3) Improved Envelope Delay Distortion*

Improved Envelope Delay Distortion upgrades the frequency versus delay response limits of the channel. The technical specifications for Improved Envelope Delay Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

* Improved Attenuation Distortion and Improved Envelope Delay Distortion will continue to be provided to all customers who were provided with either or both of these optional features in conjunction with C-Type Conditioning prior to May 4, 1988.

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(C) Conditioning (Cont'd)

(4) Data Capability (D Conditioning)

Data Capability provides transmission characteristics suitable for data communications. Specifically, Data Capability provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or three-point multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 17.3.4(C)(2) following.

When a service equipped with Data Capability is used for voice communications, the quality of the voice transmission may not be satisfactory.

(5) Telephoto Capability

Telephoto Capability provides transmission characteristics suitable for telephotographic communications. Specifically, Telephoto Capability is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 17.3.4(C)(2) following.

(6) Sealing Current Conditioning

Sealing Current Conditioning is providing to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type network channel interfaces.

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(D) Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range on effective four-wire transmission. The ranges are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 17.3.4(C)(4) following.

(E) Improved Return Loss

(1) On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 17.3.4(C)(3) following.

(2) On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 17.3.4(C)(3) following.

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(F) Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service. The rate for this option is set forth in 17.3.4(C)(6) following.

The following network channel interfaces for Voice Grade service do not require signaling capability: AH, DA, DB, DD, DE, DS, NO, PR, and TF.

The following network channel interfaces for Voice Grade service require signaling capability: AB, AC, CT, DX, DY, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF. The signaling capability charge will not apply when used in the provision of WATS access service.

(G) Selective Signaling Arrangement

An arrangement that permits code selective ringing for up to ten codes on a multipoint service. The rate for this option is set forth in 17.3.4(C)(7) following.

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(H) Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of an access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to another channel that terminates in either the same or a different customer premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option. The rate for this option is set forth in 17.3.4(C)(8) following.

(I) Public Packet Switching Network (PPSN) Interface Arrangement
An arrangement that provides the interface requirements that permit a Voice Grade service to interface with a Public Packet Switching Network packet switch located in a Telephone Company premises. The interface is compatible with X.25 and X.75 packet switching protocols as defined by the CCITT. This option is provided on an Individual Case Basis as set forth in 17.3.4(C)(9) following.

(J) Four-Wire/Two-Wire Conversions

When a customer requests that an effective four-wire channel be terminated with a two-wire channel interface at the customer designated premises, a four-wire to two-wire conversion is required. The customer will be charged the four-wire Channel Termination rate as set forth in 17.3.4(A) following when an effective four-wire is specified in the order for service. The rate for the conversion is included as part of the basic four-wire Channel Termination rate.

Special Access Service

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(K) Improved Two-Wire Voice Transmission

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 280 Hz frequency band relative to loss at 1004 HZ is -2.0 dB to +6.0 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than:

Route Miles	C-Message Noise
less than 50	35 dBrnco
51 to 100	37 dBrnco
101 to 200	40 dBrnco
201 to 400	43 dBrnco
401 to 1000	45 dBrnco

(4) Return Loss

The Return Loss, expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is equal to or greater than:

ERL	13.0 dB
SRL	6.0 dB

The rate for the provision of Improved Two-Wire Voice Transmission is included as part of the basic Channel Termination rate.

Special Access Service

7.7 Program Audio Service

7.7.1 Basic Channel Description

A Program Audio channel is a channel with bandwidth measured in Hz for the transmission of a complex signal voltage. The actual bandwidth is a function of the channel interface selected by the customer. Only one-way transmission is provided. Program Audio channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Program Audio Special Access services are typically used in full-time and part-time applications for radio broadcasting, noncommercial educational audio, and wired music. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Program Audio Service are as set forth in 17.3.5 following.

7.7.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(D) following. Compatible network channel interfaces are set forth in 15.2.2(C)(4) following.

7.7.3 Optional Features and Functions

(A) Central Office Bridging Capability

Distribution Amplifier

(B) Gain Conditioning

Control of 1004 Hz AML at initiation of service to 0dB $\pm$ 0.5 dB.

Special Access Service

7.7 Program Audio Service (Cont'd)

7.7.3 Optional Features and Functions (Cont'd)

(C) Stereo

Provision of a pair of gain/phase equalized channels for stereo applications. (An additional Program Audio channel must be ordered separately.)

The table set forth in 15.2.1(D) following shows the technical specifications packages with which the optional features and functions are available.

7.8 Video Service

7.8.1 Basic Channel Description

A Video channel is a channel with one-way transmission capability for a standard 525 line/60 field monochrome, or National Television Systems Committee color, video signal and one or two associated 5 or 15 kHz audio signal(s). The associated audio signal(s) may be either diplexed or provided as one or two separate channels. The provision and the bandwidth of the associated audio signal(s) is a function of the channel interface selected by the customer. Video channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Rates and charges for Special Access Video Service are as set forth in 17.3.6 following.

7.8.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(E) following. Compatible network channel interfaces are set forth in 15.2.2(C)(5) following.

The following network channel interfaces (NCIs) define the bandwidth and the provision of the audio signal(s) associated with a Video channel:

NCI	Audio Bandwidth	Provision
2TV6-1	15kHz	1 Channel, diplexed
2TV6-2	15kHz	2 Channels, diplexed
2TV7-1	15kHz	1 Channel, diplexed
2TV7-2	15kHz	2 Channels, diplexed
4TV6-5	5kHz	1 Channel, separate
4TV6-15	15kHz	1 Channel, separate
4TV7-5	5kHz	1 Channel, separate
4TV7-15	15kHz	1 Channel, separate
6TV6-5	5kHz	2 Channels, separate
6TV6-15	15kHz	2 Channels, separate
6TV7-5	5kHz	2 Channels, separate
6TV7-15	15kHz	2 Channels, separate